第8卷 第2期
1987年5月

动物学研究
ZOOLOGICAL RESEARCH

Vol. 8, No. 2
May, 1987

中国亮白蚁属*Euhamitermes*及二新种
(等翅目Isoptera: 白蚁科Termitidae)

朱世模　　黄复生　　李桂祥

(中国科学院昆明动物研究所)　(中国科学院动物研究所)　(广东省昆虫研究所)

关键词　等翅目　白蚁科　亮白蚁属　新种　云南省

亮白蚁属*Euhamitermes* Holmgren 1912在白蚁科Termitidae中是一个较小的类群。自1912年Holmgren以*hamatus*为代表种建立此属*Euhamitermes hamatus* (Holmgren)，在长达七十余年中，此属共包括7种。我国六十年代蔡邦华、陈宁生报道了分布于云南的*E. hamatus* (Holmgren)，1982—83年何秀松、夏凯龄发表了产于浙江衢县的浙江亮白蚁新种*E. zhejiangensis*。至此，在我国已知的亮白蚁属只2种。据闻高道蓉曾订立贵州亮白蚁*Euhamitermes guizhouensis* 但未见发表。最近，作者在整理采自云南的白蚁标本中发现了两新种——云台山亮白蚁*E. yuntaishanensis* Zhu *et* Huang、孟定亮白蚁*E. mengdingensis* Zhu *et* Li。现将中国的已知种检索表及二新种描述如后。

中国亮白蚁属*Euhamitermes*兵蚁分种检索表

1.小型种。头长(至颚基·下同)1.25—1.57毫米(下同)，头宽1.03—1.19；前胸背板宽0.58—0.68；上唇前端钝圆………多毛亮白蚁*Euhamitermes hamatu* (Holmgren) 1912

大型种。上唇前端中央凹陷……………………………………………………………… 2

2.头长1.83—1.90，头宽1.39—1.39，头壳指数（头宽/头长）0.732—0.760；前胸背板宽为0.81—0.81；上唇前端中央微凹入……………………………………………………

……………………………云台山亮白蚁*E. yuntaishanensis* Zhu *et* Huang，新种

头长小于1.80……………………………………………………………………………… 3

3.头长1.68—1.71，头最宽位于中部，1.24—1.35，头壳指数0.739—0.789；前胸背板宽0.74—0.74；上唇前端呈V形凹入……孟定亮白蚁*E. mengdingensis* Zhu *et* Li，新种

头长1.625—1.75，头最宽位于前部，1.30—1.375，头壳指数0.785—0.800；前胸背板宽0.700—0.725；上唇前端稍凹入……浙江亮白蚁*E. zhejiangensis* He *et* Xia，1982—83

云台山亮白蚁*Euhamitermes yuntaishanensis* Zhu *et* Huang，新种

* 本文1986年4月22日收到。

兵蚁(图1)

头部黄色，后唇基浅黄色，前唇基淡黄色，上唇淡色。上颚黄褐色，缘齿及上颚前端深褐色。触角及前胸背板淡黄色，腹部乳白色。头背面密布短毛和稀疏长毛，上唇侧缘及背面具数根长毛，其间散布细短毛，唇基长短毛相间，前胸背板周缘及背面具稀疏长毛，间杂短毛，腹部密布短毛。

体型较大。头呈长方形，头部前、中两侧缘近平行，后部略狭，后缘微呈孤形凸出。上唇宽大于长，似圆孤形，前端透明，前缘中央略凹入。前唇基短而宽大，呈梯形。上颚短而粗壮，端部稍向内弯曲，外缘靠近颚基部呈波状。左上颚缘齿位于中部稍前，缘齿外缘略呈长S形，缘齿尖与上颚内缘呈钝角，上颚下半段之颚齿板宽阔，在其中部具1小尖齿。右上颚缘齿位置与左上颚缘齿略同，其齿缘较左上颚缘齿为直，齿尖

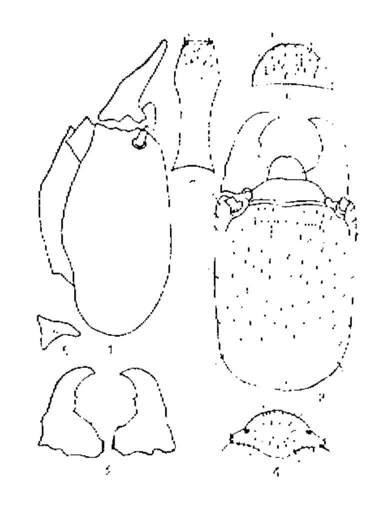


图1. 云台山亮白蚁 *Euhamitermes yuntaishanensis* 兵蚁

1.头侧面； 2.头正面； 3.上颚； 4.前胸背板正面； 5.前胸背板侧面； 6.上唇； 7.后颏

与上颚内缘呈钝角，在颚齿板末端具1小尖齿。后颏最宽处位于前方近1/4处，最狭在后方1/4处。触角14节，第3节长于第2节，第2、4节约等长。前胸背板呈马鞍形，前半部圆孤状垂直隆起，后缘略平直。前足胫节中部弓形膨大，大于中、后足胫节相应部位。胫节距为3：2：2。跗节4节。（表1）

比较：云台山亮白蚁*E. yuntaishanensis*新种与印度亮白蚁*E. indicus* (Holmgren) 头部形状相近似，但有二点可加以区别之：1.新种头宽于印度亮白蚁，头宽/头长（至颚基）指数为0.732—0.762，而后者指数为0.60，头形较新种呈细长形；2.新种前胸背板0.81—0.81毫米，较印度亮白蚁0.72毫米为宽。故较易区别之。

模式产地：云南省永平县云台山，海拔1,780米，山坡小土堆内。采集人：杨大荣；采集日期：1983年5月27日；标本编号：83Ⅴ270157。

模式标本：正模、副模兵蚁，工蚁22头均保存于中国科学院昆明动物研究所。

表 1　　云台山亮白蚁10个兵蚁量度　　毫米

项　目	范　围	项　目	范　围
头长连上颚	2.65—2.71	左上颚长	0.87—0.87
头长（至颚基）	1.83—1.90	左上颚缘齿尖至颚端	0.32—0.32
头宽（颚基）	1.23—1.26	后颏长	1.26—1.29
头宽（触角后侧）	1.39—1.39	后颏最宽	0.48—0.46
头宽（中部）	1.39—1.39	后颏最狭	0.29—0.29
头宽（后部）	1.29—1.32	前胸背板长	0.42—0.45
上唇长	0.19—0.23	前胸背板宽	0.81—0.81
上唇宽	0.39—0.42		

孟定亮白蚁*Euhamitermes mengdingensis* Zhu *et* Li，新种

兵蚁（图 2）

头部黄色，唇基浅黄，上唇淡色。上颚前方1/3红褐色，其余为黄色。触角及前胸背板淡色，腹部乳白色。头部背面密布短毛及稀疏长毛，上唇侧缘及背面具数根长毛，间杂细短毛，唇基长短毛相间，前胸背板前缘及两侧叶具数根长毛，边缘排列短毛，背板正面亦散布短毛，腹部密生细短毛。

体型较大。头长方形，中部略宽，后部向内逐渐收拢，后缘中央微凹。上唇宽大于长，前端透明，前缘中央呈V形凹陷，前唇基短宽，前缘略呈弧形。上颚短而粗壮，端部稍内弯，外缘中、后部呈波状。左上颚近中部内缘具 1 缘齿，其齿缘略呈长 S 形，缘齿尖与上颚内缘呈钝角，上颚后半段颚齿板宽阔，具 2 小尖齿。右上颚缘齿位置略同于左上颚，其齿缘亦呈较明显的反 S 形，缘齿尖与上颚内缘呈钝角，紧靠颚齿板末端具 1 小尖齿。后颏短而宽，最宽处约在前方1/3处，逐渐向后方收拢，最狭处在后方近基部

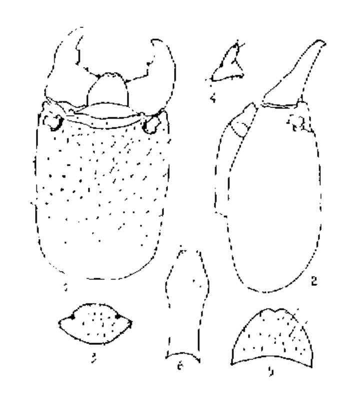


图2.　孟定亮白蚁*Euhamitermes mengdingensis* 兵蚁

1.头正面；　2.头侧面；　3.前胸背板正面；　4.前胸背板侧面；　5.上唇；　6.后颏

处。触角14节，第4节最短，第2、3节约等长，且长于第4节。前胸背板前半叶呈鞍形隆起，前缘似圆孤形，后缘平直。前足胫节中部弓形膨大，大于中、后足胫节之相应部位。胫节距为3∶2∶2。前足胫节端部背距远小于腹面二距。跗节4节。（表2）

表2 孟定亮白蚁2个兵蚁量度 毫米

项目	范围	项目	范围
头长连上颚	2.39—2.39	左上颚长	0.77—0.81
头长（至颚基）	1.68—1.71	左上颚缘齿尖至颚端	0.26—0.26
头宽（颚基）	1.19—1.26	后颏长	1.00—1.065
头宽（触角后侧）	1.23—1.29	后颏最宽	0.45—0.48
头宽（中部）	1.24—1.35	后颏最狭	0.23—0.29
头宽（后部）	1.16—1.19	前胸背板长	0.39—0.42
上唇长	0.26—0.29	前胸背板宽	0.74—0.74
上唇宽	0.39—0.45		

比较：孟定亮白蚁 *E. mengdingensis* 新种与莱氏亮白蚁 *E. lighti* (Snyder) 在头形上近似，但有两点可加以区别之：1.新种上颚长与头长（至颚基）比指数为0.458—0.474，莱氏亮白蚁的指数为0.412，显示出新种上颚长于后者；2.新种前胸背板长于

表3 几种亮白蚁体部量度 毫米

种名	头长至颚基	头最宽部位及量度	头壳指数	左上颚长	左上颚缘齿尖至颚端	前胸背板宽
云台山亮白蚁，新种 *E. yuntaishanensis* Zhu *et* Huanget	1.83—1.90	前、中部平行 1.39—1.39	0.732—0.760	0.87—0.87	0.32—0.32	0.81—0.81
印度亮白蚁 *E. indicus* (Holmgren)	1.90	1.14	0.60	—	—	0.72
孟定亮白蚁，新种 *E. mengdingensis* Zhu *et* Li	1.68—1.71	中部 1.24—1.35	0.739—0.789	0.77—0.81	0.26—0.26	0.74—0.74
莱氏亮白蚁 *E. lighti* (Snyder)	1.70	1.29	0.759	0.70	—	0.65
浙江亮白蚁 *E. zhejiangensis* He *et* Xia	1.63—1.75	前部 1.30—1.375	0.785—0.80	0.90—0.90	—	0.70—0.725
坎汉亮白蚁* *E. kanhaensis* Roonwal *et* Chhotani	1.44—1.49	中部 1.12—1.18	0.777—0.792	0.70—0.72	0.19—0.22	0.61—0.62
卡纳塔克亮白蚁 *E. karnatakensis* Roonwal *et* Chhotani	1.60	平行 1.13	0.706	0.70	0.27	0.67
多毛亮白蚁** *E. hamatus* (Holmgren)	1.25—1.57	1.03—1.23	0.739—0.824	0.67—0.80	0.23—0.29	0.58—0.68

* 据Akhtar文内测量数据；**综合蔡邦华等、Akhtar、Ahmad、Holmgren 文内测量数据。

莱氏亮白蚁。

模式产地：云南省耿马县孟定，海拔580米，茶山草皮土下30—40厘米深处采得。采集人：朱世模；采集日期：1982年8月14日；标本编号：82Ⅷ14073c。

模式标本：正模、副模兵蚁保存于中国科学院昆明动物研究所。

参 考 文 献

何秀松、夏凯龄 1982—83 浙江省鳖类两新种记述（等翅目：木鳖科及鳖科），昆虫学研究集刊 第三集，185—192页。中国科学院上海昆虫研究所编印

蔡邦华、陈宁生 1964 中国经济昆虫志 第八册 等翅目 白蚁，77—79页。科学出版社

蔡邦华、黄复生 1980 中国白蚁，21—22页。科学出版社

Ahmad, M., 1958 Key to the Indomalayan termites, *Biologia*, Vol. 4, p. 163,

——, 1965 Termites (Isoptera) of Thailand, *Bulle. Amer. Mus. Nat. Hist.*, Vol. 131:1, pp. 63—64, New York

Akhtar, M. S., 1975 Taxonomy and zoogeography of the termites (Isoptora) of Bangladesh, *Bulle. Dep. Zool. Univer.* Panjab, pp. 121—126

Chhotani, O. B., 1975 A new species of *Euhamitermes* and the imago of *Nasutitermes garoensis* from arunachal Pradesh (Isoptera: Termitidae), *Oriental Insects* Vol. 9(2): 149—153

Holmgren, N., 1913 Termitenstudien IV, Kungl. Svenska Vetenskapsademiens Handling. Band 50, No. 2, pp. 223—224

Roonwal, M. L., and Chhotani, O. B., 1965 Two new species of *Euhamitermes* Holmgren (Insecta: Isoptera: Termitidae) from India, *Proc. Zool. Soc.*, Calcutta, 18:1, pp. 1—19

Snyder, T. E., 1933 Two new termites from India, *Proc. Biol. Soc.* Wash., Vol. 46, pp. 91—94

——, 1949 Catalog of the termites (Isoptera) of the world, *Smithson. Misc. Coll.*, Vol. 112, p. 112

NOTES ON THE GENUS *EUHAMITERMES* (ISOPTERA) FROM YUNNAN, CHINA, WITH DESCRIPTIONS OF TWO NEW SPECIES

Zhu Shimo
(*Kunming Institute of Zoology, Academia Sinica*)

Huang Fusheng
(*Institute of Zoology, Academia Sinica*)

Li Guixiang
(*Guangdong Institute of Entomology*)

Euhamitermes is a small genus of the termites subfamily Amitermitinae (family Termitidae). It was established by Dr. N. Holmgren in 1912. It is tropical and subtropical, and is confined to be the Indo-Malayan Region. Only seven species are hitherto known more than seventy years. In China, Dr. Tsai *et* Chen reported first *E. hamatus* from Yunnan in nineteen sixty, a new species *E. zhejiangensis* was described by Dr. He *et* Xia in 1982—83. We describe here two new species, namely, *Euhamitermes yuntaishanensis* and *E. mengdingensis*, collected from western Yunnan.

Key to the species of *Euhamitermes* of China (Based on soldiers)

1. Body small-sized, length of head to side base of mandibles 1.25—1.57; head width 1.03—1.19; pronotum width 0.58—0.68; labrum obtuse round shaped ……………………………………… *Euhamitermes hamatus* (Holmgren) 1912

Body large-sized, labrum anterior margin concave……………………………… 2

2. Length of head to side base of mandibles 1.83—1.90; head width 1.39—1.39; width of head /length of head 0.732—0.760; pronotum width 0.81—0.81; labrum anterior margin slightly depressed in middle……………………………… ……………………………………… *E. yuntaishanensis* Zhu *et* Huang, sp. n.

Length of head shorter than 1.80……………………………………………………… 3

3. Length of head to side base of mandibles 1.68—1.71; widest width 1.24—1.35; width of head length of head 0.739—0.789; pronotum width 0.74—0.74; labrum anterior margin V-shaped…………… *E mengdingensis* Zhu *et* Li, sp. n.

Length of head to side base of mandibles 1.625—1.75; widest width 1.30—1.375; width of head/length of head 0.785—0.800; pronotum width 0.700—0.725; labrum anterior margin slightly depressed in middle……………………………………

……………………………………………………*E. zhejiangensis* He *et* Xia, 1982—83

Euhamitermes yuntaishanensis Zhu *et* Huang, sp. nov.

Soldier (Fig. 1):

Head-capsule yellow; postclypeus, anteclypeus, antennae and pronotum paler than head; mandibles reddish brown, slightly lighter basally; abdomen whitish. Head with many short hairs and scattered long bristles, labrum with some short hairs and long bristles, pronotum slightly less hairy than head, abdomen densely hairy. Head subrectangular, parallel-sided; posterior margin convex. Labrum dome-shaped, lateral sides convex; wider than long; anterior margin slightly depressed in middle. Mandibles stoutly built, bases broad, tip slightly incurved, left mandible with a small, S-shaped tooth placed in front of middle and a dentical at base; right mandible with a tooth placed in front of middle and one dentical at base; Postmentum elongate, widest a little anterior to middle, narrowest near posterior margin. Antennae with 14 articles; second slightly shorter than third, second and fourth subequal. Pronotum saddle-shaped, anterior margin convex, posterior margin almost straight. Fore legs tibial bow-shaped in middle, wider than middle and hind legs. Tibial spur 3:2:2. Tarsi four-jointed.

Table 1. Measurements (in mm.) of ten soldiers of Euhamitermes yuntaishanensis

	Range
Length of head with mandibles	2.65—2.71
Length of head to side base of mandibles	1.83—1.90
Width of head at side base of mandibles	1.23—1.26
Width of head at posterolateral ends of antennae carinae	1.39—1.39
Width of head in middle	1.39—1.39
Length of labrum	0.19—0.23
Width of labrum	0.39—0.42
Length of left mandible	0.87—0.87
Tooth of left mandible from tip	0.32—0.32
Length of postmentum	1.26—1.29
Maximum width of postmentum	0.48—0.48
Minimum width of postmentum	0.29—0.29
Length of pronotum	0.42—0.45
Width of pronotum	0.81—0.81

Comparisons:

The soldier of *Euhamitermes yuntaishanensis*, new species, comes close to that of *E. indicus* (Holmgren) in the shape of head. But it can be destinguished by its broader head and broader pronotum. Head-capsule index 0.732—0.762, head-capsule of *E. indicus* index 0.600; width of pronotum 0.81—0.81, of which is wider than *E. indicus*.

Type Locality:

Collected from Yongping County, Yuntai Mountain of Yunnan Province (25°30' N Latitude, 99°37' E Longitude), 1,780 m above sea level; 1983 V 27, by Yang Darong, dug out from ground, specimen No. 83V270157. Soldiers (holotype, paratype), workers are deposited in Kunming Institute of Zoology, Academia Sinica.

Euhamitermes mengdingensis Zhu *et* Li, sp. nov.

Soldier (Fig. 2):

Head yellow, postclypeus slightly lighter than head; antennae, pronotum and labrum paler than postclypeus; mandibles reddish brown, yellowish tinge basally; abdomen creamy white. Head densely hairy, with short hairs and scattered long bristles; labrum and postclypeus with a few short hairs and long bristles; pronotum slightly less hairy than head, abdomen densely hairy.

Body large-sized. Head subrectangular, slightly wider in middle,. posterior margin slightly concave. Labrum lateral sides convex; wider than long; anterior margin V-shaped. Mandibles stoutly built, bases broad, left mandible with a small, S-shaped tooth placed in middle and two denticales at base; right mandible inner margin also with a small S-shaped tooth in middle and one dentical at base. Postmentum elongate, narrowest near posterior margin. Antennae with 14 articales, second and third subequal, fourth shortest. Pronotum saddle-shaped, anterior margin convex, posterior almost straight. Fore legs tibial bow-shaped in middle, wider than middle and hind legs. Tibial spur 3:2:2. Tarsi four-jointed.

Table 2 Measurements (in mm.) of two soldiers of *Euhamitermes mengdingensis*

	Rang
Length of head with mandibles	2.39—2.39
Length of head to side base of mandibles	1.68—1.71
Width of head at side base of mandibles	1.19—1.26
Width of head at posteriolateral ends of antennae carinae	1.23—1.29

Width of head in middle	1.24—1.35
Length of labrum	0.26—0.29
Width of labrum	0.39—0.45
Length of left mandible	0.77—0.81
Tooth of left mandible from tip	0.26—0.26
Length of postmentum	1.00—1.065
Maximum width of postmentum	0.45—0.48
Minimum width of postmentum	0.23—0.29
Length of pronotum	0.39—0.42
Width of pronotum	0.74—0.74

Comparisons:

The soldier of *Euhamitermes mengdingensis*, new species, comes close to that of *E. lighti* (Snyder) in the shape of head. But it can be easily destinguished by its longer mandibles and pronotum.

Type locality:

Collected from Mengding, Dai-Va Autonomous County fo Gengma, Yunnan Province (23°34' N Latitude, 99°07' E Longitude), 580m above sea level; 1982 Ⅷ 14, by Zhu Shimo, dug out from ground at tea plantation, specimen No. 82Ⅷ14073c. Soldiers (holotype, paratype), are deposited in Kunming Institute of Zoology, Academia Sinica.

Key words Isoptera Termitidae *Euhamitermes* Nov. sp. Yunnan Province

Table 3 Measurements (in mm.) of eight species of *Euhamitermes* (Based on soldiers)

Species	Length of head to side base of mandibles	Maximum width of head	Head index*	Length of left mandible	Tooth of left mandidle from tip	Width of pronotum
E. yuntaishanensis Zhu *et* Huang, sp. n.	1.83—1.90	1.39—1.39	0.732—0.760	0.87—0.87	0.32—0.32	0.81—0.81
E. indicus (Holmgren)	1.90	1.14	0.60	—	—	0.72
E. mengdingensis Zhu *et* Li, sp. n.	1.68—1.71	1.24—1.35	0.739—0.789	0.77—0.81	0.26—0.26	0.74—0.74
E. lighti (Snyder)	1.70	1.29	0.759	0.70	—	0.65
E. zhejiangensis He *et* Xia	1.63—1.75	1.30—1.375	0.785—0.800	0.90—0.90	—	0.70—0.725
E. kanhaensis Roonwal *et* Chhotani	1.44—1.49	1.12—1.18	0.777—0.792	0.70—0.72	0.19—0.22	0.61—0.62
E. karnatakensis Roonwal *et* Chhotani	1.60	1.13	0.706	0.70	0.27	0.67
E. hamatus (Holmgren)	1.25—1.57	1.03—1.23	0.739—0.824	0.67—0.80	0.23—0.29	0.58—0.68

* Head index: width of head/length of head.